SLOVENSKI STANDARD
SIST EN IEC 62496-4-1:2019

01-julij-2019

Plošče z optičnimi vezji - 4-1. del: Standardi za vmesnike - Sestav OCB z valovodom, zaključenim z enovrstičnimi dvanajstkanalnimi PMT-konektorji (IEC 62496-4-1:2019)

Optical circuit boards - Part 4-1: Interface standards - Terminated waveguide OCB assembly using single-row twelve-channel PMT connectors (IEC 62496-4-1:2019)

Optische Leiterplatten - Teil 4-1: Schnittstellen Standard - Konfektionierter 12-Faser OCB montierter Wellenleiter mit PMT Stecker (IEC 62496-4-1:2019)

Cartes a circuits optiques - Partie 4-1: Normes d'interface - Terminaison d'un ensemble de cartes à circuits optiques à guide d'onde utilisant des connecteurs PMT de douze canaux sur une seule rangée (IEC 62496-4-1:2019)

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SIST EN IEC 62496-4-1:2019 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

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Optical circuit boards - Part 4-1: Interface standards - Terminated waveguide OCB assembly using single-row twelve-channel PMT connectors (IEC 62496-4-1:2019)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 86/547/FDIS, future edition 1 of IEC 62496-4-1, prepared by IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62496-4-1:2019.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2019-12-12
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2022-03-12

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Endorsement notice

The text of the International Standard IEC 62496-4-1:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 61754-5	NOTE	Harmonized as EN 61754-5

IEC 62496-4-1

Edition 1.0 2019-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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FOREWORD

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International Standard IEC 62496-4-1 has been prepared by IEC technical committee 86: Fibre optics.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
86/547/FDIS	86/550/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 62496 series, under the general title, *Optical circuit boards*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

OPTICAL CIRCUIT BOARDS –

Part 4-1: Interface standards – Terminated waveguide OCB assembly using single-row twelve-channel PMT connectors

1 Scope

This part of IEC 62496-4 defines the standard interface dimensions for a terminated waveguide optical circuit board (OCB) assembly (referred to simply as assembly) using single-row twelve-channel polymer waveguides for a PMT connector and a waveguide OCB that can be interconnected with a terminated MT ferrule.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

4 Description

The assembly comprises a PMT connector and a twelve-core waveguide OCB. The PMT connector is a rectangular connector having the same outer dimensions as the type MT connector specified in IEC 61754-5. The PMT connector is aligned using alignment pins and is normally secured by the use of a latching spring and mates with the type MT connector as shown in Figure 1. Details of the PMT connector are shown in Annex A. The waveguide OCB comprises a planar light-guide consisting of a core and cladding material appropriate to transmit light as the operational wavelengths require, the light-guide being supported on a substrate. Preferably, the substrate will be flexible in order to accommodate compliance to the MT connector. The cores of the waveguide OCB are aligned with the optical fibres of the MT connector after mating using two guide pins and a clamp spring.